In the Drawings

Figure 1 has been amended to include the text "Prior Art". For the Examiner's convenience, a "Marked-Up" version of Figure 1 is attached, showing the changes that were made in red ink. Upon indication of notice of allowance, Applicant will submit replacement formal drawings for Figure 1.

REMARKS

Claims 1-18 are pending. Claims 1, 3, 4, and 10 have been amended. Claims 11-18 are newly presented. Reconsideration and allowance of the present application based on the following remarks are respectfully requested.

In the Abstract and Specification

The abstract and the drawings were objected to as containing minor informalities. Applicant has amended the abstract to correct these informalities. Accordingly, Applicant respectfully submits that this objection is moot.

The drawings were objected to as containing minor typographical errors. As indicated by the attached "marked-up" version of drawings, Applicants have amended Figure 1 to include the text "Prior Art" in accordance with the Examiner's suggestions. Additionally, applicants have amended the specification to include the missing references numbers. Accordingly, Applicants respectfully submit that this objection is moot. Upon indication of a notice of allowance, Applicant will submit replacement formal drawings for these figures.

Claim Objections

The claim 6 was objected to as containing a minor typographical error. Applicant has amended claim 6 to correct this typographical error. Accordingly, Applicant respectfully submits that this objection is moot.

Claim Rejections Under 35 U.S.C. § 112

Claims 1-10 were rejected under 35 U.S.C. § 112, second paragraph. Applicants have amended the claims to more particularly claim and distinctly claim the subject matter which is regarded as the invention. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

Claim Rejections Under 35 U.S.C. § 101

Claims 1-9 were rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. Applicants have amended the claims and respectfully submit that the amended claims are directed to statutory subject matter because these claims recite a useful process as indicated by 35 U.S.C. § 101. See, for example, *Diamond v. Chakrabarty*, 447 U.S. 303, 308-09 (1980) – indicating that the expansive language of section 101includes

"anything under the sun that is made by man". Furthermore, Applicants submit that these claims are funtional and produce a useful result. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

Claim Rejections Under 35 U.S.C. § 102

Claims 1-10 were rejected under 35 U.S.C. § 102(b) over Kim et al. (Scalable On-the-Fly Detection of the First Races in Parallel Programs, ACM 1998). Applicant respectfully traverses this rejection.

Claim 1 recites a parallel loop transformation method for race detection during an execution of parallel programs that includes, for example, transforming an original parallel loop into a full race covering loop using a data structure of a condition statement branch determinant string Cstr required for loop transformation and the execution paths information. In contrast, Kim discloses an on-the-fly detection method to reduce the number of first races. Kim does not teach or even suggest, for example, transforming an original parallel loop into a full race covering loop. Accordingly, Kim fails to teach, or even suggest, a parallel loop transformation method for race detection during an execution of parallel programs that includes transforming an original parallel loop into a full race covering loop using a data structure of a condition statement branch determinant string Cstr required for loop transformation and the execution paths information, as recited in claim 1.

Kim also fails to teach, or even suggest, generating a data structure of a condition statement branch determinant string Cstr and instrumenting the race detection function for the transformed parallel loop, as further recited in claim 1.

Claim 10 is believed allowable for at least the reasons presented above with respect to claim 1 because claim 7 recites the same feature of claim 1 discussed above.

Claims 2-9 are believed allowable for at least the same reasons presented above with respect to claim 1 by virtue of their dependence upon claim 1. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

New Claims

Claims 11-18 are newly presented, fully supported by the originally filed specification and believed allowable over the prior art of record.

Conclusion

Therefore, all objections and rejections having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited.

Should any issues remain unresolved, the Examiner is encouraged to contact the undersigned attorney for Applicants at the telephone number indicated below in order to expeditiously resolve any remaining issues.

Respectfully submitted,

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